

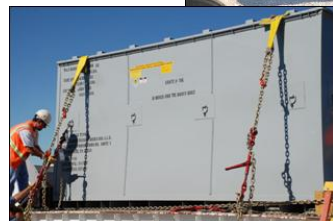
Nuclear Facility Deactivation and Decommissioning (D&D), Remainder of Hanford (RL-0040)

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***L-626, 100B Export Water
Reliability Enhancements,
excavation and piping installation***



***212-N Facility
Crate #6 weld
repair, tied down,
and transport***



***212-N Facility
Crate #19 is being loaded
into a shipping container***



Overview

This section addresses Project Baseline Summary (PBS) RL-0040, Nuclear Facility Deactivation and Decommissioning (D&D), Remainder of Hanford. There are three major components to this work scope:

- Central Plateau Deactivation & Decommissioning (R. E. Wilkinson),
- Waste Sites Remediation (B. H. Ford), and
- Reliability Projects (R. G. Slocum).

NOTE: Unless otherwise noted, all information contained herein is as of the end of July 2007.

Notable Accomplishments

PBS RL-0040, Nuclear Facility D&D, Remainder of Hanford

Central Plateau D&D:

200-UW-1 U Plant Zone Waste Site Remediation:

- Justification of the STOMP model (Volume I) for Remove, Treat, and Disposal (RTD) Technical Basis document (Volume II) has completed a second review and comments are being incorporated.

200 North Sites – RTD:

- Site 216-N-7 sample results were validated on August 1, 2007.

221-U Facility Canyon:

- The Environmental Protection Agency (EPA) completed its review of the RL responses to regulator comments on the remedial design/remedial action work plan (RD/RAWP) on July 19, 2007.
- EPA has extended the period for its review of RL responses on a draft Tri-Party Agreement-in-principle (AIP) for Central Plateau facility disposition until August 20, 2007.

212-N Facility:

- Shipped Crates #6, 7, 8, 10, 15, and 16.
- Nine of 15 crates have been shipped.

PUREX and Canyons:

- Continued development of the Multi-Canyon Project Management Plan draft.

Waste Site Remediation:

- Completed direct push activities and sampling in the 216-A-21 crib.
- Delivered decisional draft of PW-1/3/6 Feasibility Study/Proposed Plan.
- Submitted the draft TPA 200-CW-5 change package to DOE that extends the M-15-40D milestone.
- Continued progress on A-2 high risk borehole.

Notable Accomplishments, continued

Reliability Projects:

- Received approval for the interim baseline change request for implementation of DOE Order 430.1b, *Real Property Asset Management*.
- Continued progress on current year reliability projects:
 - Completed L-515, *Chip Seal from Route 4S between Wye Barricade and Route 11A*, on July 27, 2007.
 - Awarded the construction contract for L-626, *100B Export Water System Reliability Enhancements*, 181-B (River Pump House) diesels/pumps, and associated equipment installation on July 24, 2007.
 - Received the regulated vacuum truck (guzzler) on site July 30, 2007.
 - Started construction on L-429, *12-Inch Water Line Mortar Lining Along 4th Street from Baltimore to Canton*.

FY 2007 Funds vs. Spend Forecast (\$M)

| | Projected FY 2007 Funding | FY 2007 Fiscal Year Spend Forecast | Variance |
|--|------------------------------|---------------------------------------|----------|
| RL-0040 Nuclear Facility D&D, Remainder of Hanford | \$ 70.9 | \$ 61.4 | \$ 9.5 |

Schedule/Cost Performance (\$M)

| Nuclear Facility D&D, Remainder of Hanford | Budgeted Cost of Work Scheduled | Budgeted Cost of Work Performed | Actual Cost of Work Performed | Schedule Variance \$ | Schedule Variance % | Cost Variance \$ | Cost Variance % | Budget At Completion (FY07/ CTD) |
|---|--|--|-------------------------------------|-------------------------|---------------------------|---------------------|-----------------------|---|
| Current Period (Month) | \$6.0 | \$5.4 | \$5.7 | -\$0.6 | -10.1% | -\$0.4 | -6.7% | \$61.4 |
| Cumulative-to-Date (FY 2004-Present) | \$235.9 | \$234.4 | \$231.8 | -\$1.5 | -0.6% | \$2.6 | 1.1% | \$321.2 |

Numbers are rounded to the nearest \$0.1M.

CTD Schedule Performance (-\$1.5M/-0.6%):

The positive schedule variance (SV) for the Central Plateau D&D Project (CP D&D) organization (+\$2.0M) is due to:

- Demolition of post contract period structures (+\$3.6M), offset by delays in 241-U-361 Tank sampling due to subcontractor equipment failure; delays in vadose zone characterization and the Treatability Test Plan due to critical resources working on remedial action goals which is considered a higher priority (-\$1.2M); delays in procurement/installation of the decon and shower trailers (-\$0.3M); and delays in receipt of exhaust fans for REDOX/U Plant (-\$0.1M).

Schedule/Cost Performance (\$M), continued

CTD Schedule Performance, continued:

The unfavorable SV in Waste Site Remediation (-\$2.7M) is due to the following:

- Delays in engineering studies/miscellaneous (-\$0.3M). No impacts; studies will be replanned to FY 2008.
- Delays in field work tied to CW-1 characterization due to lack of Ecology approval of the sampling analysis plan (SAP) (-\$0.5M). Some work will be started in FY 2007; majority will be carried over to FY 2008.
- Delays in drilling of the A-2 borehole due to delayed regulator approval of the SAP, and slow drilling progress through high-rad zones (MW-1) (\$-1.3M) recoverable.
- Delays in SW-2 collaborative data quality objective (DQO) which is taking longer than planned due to a large number of regulatory participants, issues and concerns; resources focusing on the DQO causing additional delays in other SW-2 scope (work plan, modeling, and data management and passive vapor sampling) (-\$0.2M). No impact to regulatory commitments.
- Other miscellaneous delays (-\$0.8M).
- Offset by completion of work scope in FY 2005 and 2006 accelerated from FY 2008 (+\$0.2M), and by the early start of down posting surveys at 200-UR-1 (+\$0.2M).

The unfavorable SV for Reliability Projects (-\$0.8M) is primarily due to the following:

- Project L-626, *100B Export Water System Reliability Enhancements*, was delayed due to pump procurement and environmental impact assessment complexities (-\$0.4M). A change in the project construction schedule logic will allow installation activities (removal of old pumps and the pre-installation activities for the new pumps) concurrent with assembly of pumps offsite.
- Project L-614, *Repeater Sites Safety*, National Environmental Policy Act (NEPA) and cultural review delays (-\$0.6M) also contributed to the SV.
- Partially offset by ahead of schedule capital equipment procurements (+\$0.2M).

CTD Cost Performance (+\$2.6M/+1.1%):

The favorable cost variance (CV) for CP D&D (+\$4.0M) is primarily due to the following factors:

- Prior year cost overruns in Remediation Projects (-\$3.9M) resulting from:
 - Additional direct push sampling during field investigation to determine contamination levels.
 - Greater than planned effort to resolve FS/PP comments and Remedial Design SAP.
 - Delays in barrier construction without reductions in staffing levels.
 - Lateral spread of contamination at 200-W-42, resulting in more waste containers being shipped to ERDF than planned.
 - Higher than planned sampling costs for 200 North Remove, Treat and Disposal (RTD) Waste Sites.
- Completion of U Ancillary Facilities in less time than planned, resulting in less level of effort costs and efficiencies completing demolition of post contract period structures. Offset by cost overruns demolishing 233-S resulting from a first-of-a-kind demolition being more challenging than planned (+\$0.8M).
- Prior-year efficiencies in CP Surveillance and Maintenance in staffing resulting from not replacing budgeted staff and loaning labor to higher priority projects within D&D. Also due to lower than planned corrective maintenance in prior years for 209E and B Plant (+\$2.9M).
- Prior and current year variance distributions (passbacks) in CP Project Management and Support (+\$4.2M).

The unfavorable CV for Waste Site Remediation (-\$1.2M) is due mainly to the following:

- Prior-year unbudgeted resources for BC Cribs and Trenches (-\$0.6M) directed toward preparation of the focused feasibility study and the proposed plan.
- Document preparation support for CW-5 and TW-1 (-\$0.5M) required as a result of lessons learned (feasibility study and proposed plan development).
- 200-PW-2/4 (-\$1.0M) - Remedial Investigation (RI) sample costs higher due to highly contaminated samples; equipment replacement costs for unplanned contaminated equipment during the 216-A-10 field work; unplanned work and rework tied to the RI report (data compilation, preparation of the S-7 RI report, and a large number of comments on and difficulty with comment resolution).

Schedule/Cost Performance (\$M), continued

CV for Waste Site Remediation (-\$1.2M) is due mainly to the following:

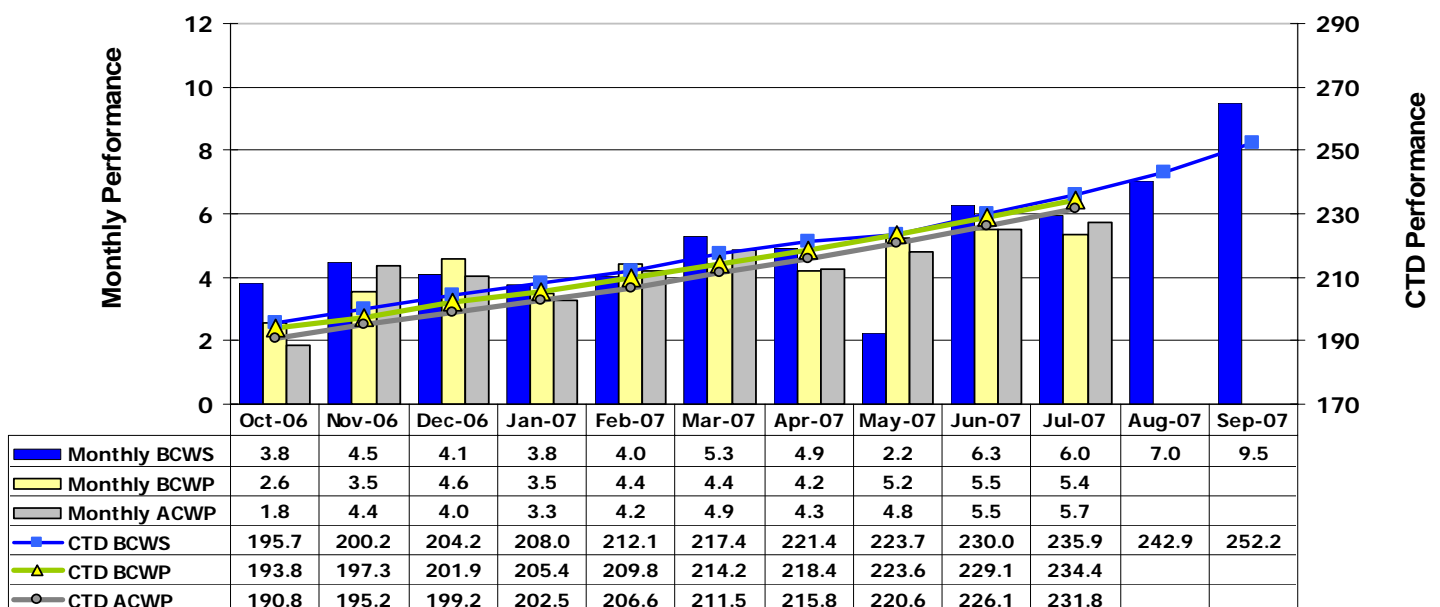
- 200-PW-1/3/6 (-\$2.2M) – FY 2004 and FY 2005 Z-9 vertical borehole construction requiring more labor, analytical support and greater waste costs due to higher than expected radiological contamination found below ground, and the discovery of carbon tetrachloride in the drill cuttings.
- Added subcontract costs to supplement the DQO for 200-UR-1 (-\$0.2M).
- 200-LW-1 (-\$1.6M) - Prior year variances associated with analytical costs which were planned for off-site analysis with a standard 45-day turnaround time, but analytical support has been provided by on-site labs with an expedited, quick-turn analysis to allow the lab data to be incorporated into the 200-TW-1 Feasibility Study, and completion of the S-20, T-28, and Z-7 boreholes had cost more than planned.
- Miscellaneous negative variances (-\$0.3M).
- Offset by favorable variances for:
 - SW-1/2 (+\$0.4M) for the early completion of the RI Report.
 - 600 Area Waste Sites (+\$0.6M) for completing the subcontracted preliminary design for less than planned.
 - Central Plateau Integration and Planning due to variance distributions (+\$3.9M).
 - Minor miscellaneous positive cost variances (+\$0.3M).

The unfavorable CV for Reliability Projects (-\$0.5M) is primarily due to the following factors:

- Increase in steel prices for prior-year facility and water projects (-\$3.2M).
- Prior year telecommunication projects technology delays (-\$0.5M).
- Offset by underruns in Project L-325, *A-8 Substation*, (+\$1.5M), capital equipment procurements (+\$0.9M), road refurbishments (+\$0.6M), and various other projects (+\$0.2M).

The favorable CV for Closure Services (+\$0.5M) is within established thresholds.

Performance Analysis CTD and Monthly (\$M)



Milestone Achievement

| PBS | MSN | Milestone Title | Type | Due Date | Actual Date | Forecast Date | Status / Comments |
|---------|--------------------------|--|------|----------|-------------|---------------|-----------------------------|
| RL-0040 | M-015-45A | Submit 200-PW-1 OU Remedial Investigation Report | HQ | 10/31/06 | 9/28/06 | | Completed ahead of schedule |
| RL-0040 | M-091-40L-012 | Quarterly Burial Ground vent/substrate sampling results (1st Qtr 2007) | HQ | 12/1/06 | 11/10/06 | | Completed ahead of schedule |
| RL-0040 | M-091-40L-013 | Quarterly Burial Ground vent/substrate sampling results (2nd Qtr 2007) | HQ | 3/15/07 | 2/12/07 | | Completed ahead of schedule |
| RL-0040 | M-13-50 CPDD-07-012 | Draft A RI work plan for supplemental waste site characterization | RL | 3/31/07 | 3/14/07 | | Completed ahead of schedule |
| RL-0040 | CPDD-07-011 | Project Execution Plan reflective of an integrated groundwater source approach | RL | 3/31/07 | 3/28/07 | | Completed ahead of schedule |
| RL-0040 | CPDD-07-009 | Draft "A" Excavation Treatability Test plan (including SAP) for the 200 Area BC Crib and Trenches | RL | 5/31/07 | 5/24/07 | | Completed ahead of schedule |
| RL-0040 | M-091-40L-014 | Quarterly Burial Ground vent/substrate sampling results (3rd Qtr 2007) | HQ | 6/15/07 | 6/13/07 | | Completed ahead of schedule |
| RL-0040 | CPDD-07-001 | Safety basis document defining appropriate controls to allow disposition of U Plant Cell 30 tank contents | RL | 6/30/07 | 6/11/07 | | Completed ahead of schedule |
| RL-0040 | CPDD-07-002 | Ten High Risk Industrial Facilities Demolished to Slab on Grade | RL | 6/30/07 | 2/12/07 | | Completed ahead of schedule |
| RL-0040 | CPDD-07-003 | U Plant Canyon Facility Waste Acceptance Study | RL | 6/30/07 | 6/25/07 | | Completed ahead of schedule |
| RL-0040 | D&D-07-001 | U Plant Accelerated Closure Engineering Studies | | 6/30/07 | 6/25/07 | | Completed ahead of schedule |
| RL-0040 | M-13-27 CPDD-07-014 | Submit a revised RI/FS Work Plan for the 200-IS-1 and 200-SW-2 OUs | HQ | 6/30/07 | 6/13/07 | | Completed ahead of schedule |
| RL-0040 | CPDD-07-005 | Three 200-CW-3, 200 North Cooling Water Group, waste sites remediated under the remove, treat, and dispose alternative | RL | 7/31/07 | 7/25/07 | | Completed ahead of schedule |
| RL-0040 | M-091-40L-015 | M-91-40L.4C Quarterly Burial Ground vent/substrate sampling results (4th Qtr 2007) | HQ | 9/15/07 | 7/16/07 | | Completed ahead of schedule |
| RL-0040 | M-015-45B CPDD-07-006 | Submit Draft A Feasibility Study and Proposed Plan for the 200-PW-1/3/6 Operable Unit Group. | HQ | 9/30/07 | | | On schedule |
| RL-0040 | CPDD-07-007 | Central Plateau Cleanup and Configuration Control Specification document | RL | 9/30/07 | | | On schedule |
| RL-0040 | M-13-28 CPDD-07-013 | Submit a revised RI/FS Work Plan for the 200-SW and 200-SW-2 OUs | RL | 9/30/07 | | | On schedule |
| RL-0040 | CPDD-07-004 | 212-N nuclear facility hazard reduction and downgrade completed | RL | 11/30/07 | | 10/8/07 | Forecast ahead of schedule |
| RL-0040 | CPDD-07-0010 | Complete phase one of the BC Crib and Trenches Treatability Test Plan | RL | 11/30/07 | | | On schedule |
| RL-0040 | M-091-40L-016 | M-91-40L.4.D Quarterly Burial Ground vent/substrate sampling results (1st Qtr 2008) | HQ | 11/30/07 | | | On schedule |
| RL-0040 | CPDD-07-008 | Complete Construction of Project L-626, 100B-A Water System Enhancement | RL | 12/31/07 | | 12/15/07 | Forecast ahead of schedule |